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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/047,717	03/25/1998	MAKOTO TANIGUCHI	U-011678-8	3541

140 7590 07/16/2002

LADAS & PARRY
26 WEST 61ST STREET
NEW YORK, NY 10023

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
1714	22

DATE MAILED: 07/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/047,717	TANIGUCHI ET AL.
	Examiner Callie E. Shosho	Art Unit 1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 21 February 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 23-79 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 23-79 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 2/21/02.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In light of the amendment to claim 23, on which claim 26 depends, the scope of claim 26 appears to be redundant given that claim 26 requires that the ink comprise base while claim 23 already recites such limitation. Should claim 26 be cancelled?

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 23-24, 26-27, 30-33, 41, 43-48, and 71-72 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomita et al. (U.S. 5,017,224).

The rejection is adequately set forth in paragraph 7 of the office action mailed 8/21/01, Paper No. 20, and is incorporated here by reference.

With respect to newly added claims 71-72, it is noted that the claims recite “consisting essentially of” transitional language and the polymer of Tomita et al. ‘224 necessarily comprises primary amino repeating units in addition to the presently cationic repeating unit. However, while it is recognized that the phrase “consisting essentially of” narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, “consisting essentially of” is construed as equivalent to “comprising”. Further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. primary amino repeating units, would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant’s invention, See MPEP 2111.03.

6. Claims 23-27, 29-32, 34, 40-42, 45-46, 48, 52-56, 58-60, 62, 68, 71-72, and 75-76 are rejected under 35 U.S.C. 102(e) as being anticipated by Takizawa et al. (U.S. 6,174,354).

The rejection is adequately set forth in paragraph 8 of the office action mailed 8/21/01, Paper No. 20, and is incorporated here by reference.

With respect to newly added claims 72 and 76, given that Takizawa et al. disclose polymer obtained from anionic monomer such as acrylic acid and cationic monomer as presently claimed, it is clear that Takizawa et al. meet the limitations of these claims.

With respect to newly added claims 71 and 75, it is noted that the claims recite “consisting essentially of” transitional language and the polymer of Takizawa et al. comprises repeating units of anionic monomer in addition to the presently cationic repeating unit. However, while it is recognized that the phrase “consisting essentially of” narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, “consisting essentially of” is construed as equivalent to “comprising”. Further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. anionic repeating unit, would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant’s invention, See MPEP 2111.03.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. (U.S. 5,017,224) in view of Taniguchi et al. (U.S. 5,667,572).

The rejection is adequately set forth in paragraph 10 of the office action mailed 8/21/01, Paper No. 20, and is incorporated here by reference.

9. Claims 34-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoffel et al. (U.S. 5,555,008) in view of Tomita et al. (U.S. 5,017,224).

The rejection is adequately set forth in paragraph 11 of the office action mailed 8/21/01, Paper No. 20, and is incorporated here by reference.

10. Claims 28, 35-38, 57, 63-66, and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa et al. (U.S. 6,174,354).

The rejection is adequately set forth in paragraph 12 of the office action mailed 8/21/01, Paper No. 20, and is incorporated here by reference.

With respect to newly added claim 79, it is noted that there is no explicit disclosure in Takizawa et al. of the amount of presently claimed repeating unit present in the polymer.

However, Takizawa et al. disclose the use of polymer obtained from both anionic monomer and cationic monomer that is identical to repeating unit presently claimed. Takizawa et al. further disclose that the polymer is used to fix the anionic or cationic dyestuff present in the ink to the surface of the recording medium (col.4, lines 12-26).

In light of the above, it would have been within the skill level of, as well as obvious to, one of ordinary skill in the art to control the amount of cationic monomer utilized in the polymer of Takizawa et al. to amounts, including those presently claimed, depending on the type of dyestuff present in the ink in order that the polymer effectively fix the dyestuff to the recording medium and thus prevent color bleed and produce high quality image, and thereby arrive at the claimed invention.

11. Claims 33 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa et al. (U.S. 6,174,354) in view of Taniguchi et al. (U.S. 5,667,572).

The rejection is adequately set forth in paragraph 13 of the office action mailed 8/21/01, Paper No. 20, and is incorporated here by reference.

12. Claims 39 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa et al. (U.S. 6,174,354) in view of Yatake (U.S. 5,746,818).

The rejection is adequately set forth in paragraph 14 of the office action mailed 8/21/01, Paper No. 20, and is incorporated here by reference.

13. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa et al. (U.S. 6,174,354) in view of Tomita et al. (U.S. 5,017,224).

The rejection is adequately set forth in paragraph 15 of the office action mailed 8/21/01, Paper No. 20, and is incorporated here by reference.

14. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa et al. (U.S. 6,174,354) in view of Taniguchi et al. (U.S. 5,667,572).

The rejection is adequately set forth in paragraph 16 of the office action mailed 8/21/01, Paper No. 20, and is incorporated here by reference.

15. Claims 50-51, 69-70, 73-74, and 77-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa et al. (U.S. 6,174,354).

The rejection is adequately set forth in paragraph 17 of the office action mailed 8/21/01, Paper No. 20, and is incorporated here by reference.

With respect to newly added claims 74 and 78, given that Takizawa et al. disclose polymer obtained from anionic monomer such as acrylic acid and cationic monomer as presently claimed, it is clear that Takizawa et al. meet the limitations of these claims.

With respect to newly added claims 73 and 77, it is noted that the claims recite “consisting essentially of” transitional language and the polymer of Takizawa et al. comprises repeating units of anionic monomer in addition to the presently cationic repeating unit. However, while it is recognized that the phrase “consisting essentially of” narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, “consisting essentially of” is construed as equivalent to “comprising”. Further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. anionic repeating unit, would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant’s invention, See MPEP 2111.03.

Response to Arguments

16. Applicants’ arguments with respect to Tomita et al. ‘164 (U.S. 5,019,164) have been fully considered but they are moot in view of the discontinuation of this reference against the present claims.

17. Applicants’ arguments filed 2/21/02 have been fully considered but they are not persuasive.

Specifically, applicants argue that:

- (a) there is nothing in Tomita et al. '224 to show or suggest the selection of cationic water-soluble resin in combination with claimed base.
- (b) Tomita et al. '224 is not a relevant reference against present claims 71-72 given that the "consisting essentially of" transitional language excludes the use of primary amino group disclosed by Tomita et al. '224 as repeating unit in claimed cationic water-soluble resin.
- (c) Takizawa et al. disclose amphoteric polymer not cationic polymer as presently claimed.

With respect to argument (a), it is noted that the ink of Tomita et al. '224 requires the use of both polyamine and pH adjustor. The polyamine is chosen from amongst three types of polyamine – polyethyleneimine, polyacrylamine, and polyvinylamine (col.3, lines 29-55) wherein the polyvinylamine is identical to cationic water-soluble resin presently claimed. The pH adjustor is either sodium hydroxide or ethanolamine (col.4, lines 61-64). Although there are no specific examples that disclose ink comprising presently claimed cationic water-soluble resin and base, "applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others", *In re Courtright*, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). Further, "nonpreferred disclosures can be used. A nonpreferred portion of a reference disclosure is just as significant as the preferred portion in assessing the patentability of claims", *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). A fair reading of the reference as a whole clearly discloses an ink comprising both presently claimed cationic water-soluble resin and base.

Further, it is noted that the claimed cationic resin and base are not chosen from large list of resins and bases, but rather from small group as stated above. Additionally, “when the species is clearly named, the species claim is anticipated no matter how many other species are additionally named, *Ex parte A*, 17 USPQ2d 1716 (Bd. Pat. App. & Inter. 1990).

Applicants argue that the comparative data as set forth on pages 24-26 of the present specification establishes the criticality of presently claimed cationic resin. While the data show that inks within the scope of the present claims, i.e. comprising cationic resin with claimed repeating unit, are superior to those outside the scope of the present claims, i.e. not comprising cationic resin with claimed repeating unit but resin such as polyethyleneimine, in terms of water resistance and bleeding or stability, given that Tomita et al. ‘224 already disclose the use of cationic resin as presently claimed, the results of the comparative data are not believed to be unexpected or surprising.

Additionally, as cited in MPEP 706.02(b), it is noted that a rejection based on 35 USC 102(e), such as those of Takizawa et al., can only be overcome by (a) persuasively arguing that the claims are patentably distinguishable from the prior art, (b) amending the claims to patentably distinguish over the prior art, (c) filing an affidavit under 37 CFR 1.132 showing that the reference invention is not by ‘another’, or (d) perfecting priority under 35 USC 119(a)-(e) or 120. As can be seen, comparative data is not sufficient to overcome an anticipatory rejection under 102(e).

With respect to argument (b), it is noted that the claims recite “consisting essentially of” transitional language and the polymer of Tomita et al. ‘224 necessarily comprises primary amino

repeating units in addition to the presently cationic repeating unit. However, while it is recognized that the phrase “consisting essentially of” narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, “consisting essentially of” is construed as equivalent to “comprising”. Further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. primary amino repeating units, would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant’s invention, See MPEP 2111.03.

With respect to argument (c), it is agreed that Takizawa et al. disclose amphoteric polymer that comprises both anionic and cationic repeating unit.

However, given the open language of the present claims, i.e. “cationic water-soluble resin comprising”, it is clear that the presently claimed cationic resin can comprise additional repeating units including the anionic monomers as disclosed in Takizawa et al.

Additionally, it is noted that Takizawa et al. disclose that the pH of the ink can be adjusted to values either higher or lower than the isoelectric point of the polymer. When higher, the amphoteric polymer exhibits anionic characteristics and when lower, the polymer exhibits cationic characteristics (col.3, line 59-col.4, line 2 and col.4, lines 36-50). Thus, it is clear that the amphoteric polymer of Takizawa et al. can function as cationic resin as presently claimed.

With respect to newly added claims 72, 74, 76, and 78, it is noted that these claims require that the cationic water-soluble resin comprise repeating units represented by presently claimed formula (I) together with additional repeating unit which includes acrylic acid, Given

that the amphoteric polymer of Takizawa et al. is formed from anionic monomer such as acrylic acid and cationic monomer as presently claimed, it is clear that polymer of Takizawa et al. meets the limitations of these claims.

With respect to newly added claims 71, 73, 75, and 77, it is noted that the claims recite “consisting essentially of” transitional language and the polymer of Takizawa et al. comprises repeating units of anionic monomer in addition to the presently cationic repeating unit. However, while it is recognized that the phrase “consisting essentially of” narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, “consisting essentially of” is construed as equivalent to “comprising”. Further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. anionic repeating unit, would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant’s invention, See MPEP 2111.03.

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

CS.
Callie Shosho
7/12/02

Vasu Jagannathan
VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700